

IN THE CLAIMS:

The status of each claim that has been introduced in the above-referenced application is identified in the ensuing listing of the claims. This listing of the claims replaces all previously submitted claims listings.

1. (Currently amended) An apparatus for conditioning a polishing pad, comprising:
a supporting substrate including a conditioning surface; and
a plurality of abrasive elements adjacent at least ~~said~~the conditioning surface, ~~said~~the plurality of
abrasive elements comprising a material that is degradable or dissolvable by at least one
chemical that does not substantially degrade or dissolve a material of a polishing pad to
be conditioned with ~~said~~the apparatus.
2. (Currently amended) The apparatus of claim 1, wherein ~~said~~the plurality of
abrasive elements have a dimension of from about 25 μm to about 500 μm .
3. (Currently amended) The apparatus of claim 1, wherein ~~said~~the plurality of
abrasive elements are secured to ~~said~~the conditioning surface.
4. (Currently amended) The apparatus of claim 1, wherein ~~said~~the plurality of
abrasive elements comprise abrasive particles at least partially embedded in ~~said~~the supporting
substrate.
5. (Currently amended) The apparatus of claim 4, wherein ~~said~~the abrasive particles
are at least partially embedded in ~~said~~the conditioning surface.
6. (Currently amended) The apparatus of claim 5, further including abrasive
elements that are completely embedded within ~~said~~the supporting substrate.

7. (Currently amended) The apparatus of claim 4, wherein ~~said~~the supporting substrate comprises at least one of a polymer, a metal, a ceramic, paper, a paper-like compound, a textile, a mat of material, and a mesh of material.

8. (Currently amended) The apparatus of claim 1, wherein at least some of ~~said~~the plurality of abrasive elements are located beneath ~~said~~the conditioning surface.

9. (Currently amended) The apparatus of claim 1, wherein ~~said~~the supporting substrate is substantially rigid.

10. (Currently amended) The apparatus of claim 9, wherein ~~said~~the supporting substrate comprises at least one of a polymer, a metal, and a ceramic.

11. (Currently amended) The apparatus of claim 1, wherein ~~said~~the supporting substrate is pliable.

12. (Currently amended) The apparatus of claim 11, wherein ~~said~~the supporting substrate comprises at least one of paper, a paper-like compound, textile, a mat of material, and a mesh of material.

13. (Currently amended) The apparatus of claim 1, wherein ~~said~~the supporting substrate is secured to a rigid support.

14. (Currently amended) The apparatus of claim 1, wherein ~~said~~the plurality of abrasive elements comprise filaments.

15. (Currently amended) The apparatus of claim 1, wherein ~~said~~the plurality of abrasive elements protrude from and are continuous with ~~said~~the conditioning surface.

16. (Currently amended) The apparatus of claim 1, wherein ~~said~~the plurality of abrasive elements and ~~said~~the supporting substrate comprise the same material.

17. (Currently amended) The apparatus of claim 15, wherein ~~said~~the plurality of abrasive elements and at least ~~said~~the conditioning surface of ~~said~~the supporting substrate comprise ~~said~~the material that is degradable or dissolvable by at least one chemical that does not substantially degrade or dissolve a material of a polishing pad to be conditioned with ~~said~~the apparatus.

18. (Currently amended) The apparatus of claim 17, wherein ~~said~~the material that is degradable or dissolvable by at least one chemical that does not substantially degrade or dissolve a material of a polishing pad to be conditioned comprises at least one of silicon dioxide, iron, an iron alloy, copper, nickel, and tungsten.

19. (Currently amended) The apparatus of claim 1, wherein ~~said~~the at least one chemical comprises at least one of hydrofluoric acid, sodium hydroxide, potassium hydroxide, and hydrochloric acid.

20. (Currently amended) A method for conditioning a polishing pad, comprising:
providing a polishing pad including a polishing surface;
abrading at least a portion of ~~said~~the polishing surface with a conditioner including an abrasive material that is etchable selectively with respect to a material of ~~said~~the polishing pad;
and
exposing at least ~~said~~the portion of ~~said~~the polishing surface to at least one chemical to remove particles of ~~said~~the abrasive material from at least ~~said~~the portion without substantially degrading or dissolving ~~said~~the material of ~~said~~the polishing pad.

21. (Currently amended) The method of claim 20, wherein ~~said~~ abrading comprises abrading at least ~~said~~the portion of ~~said~~the polishing surface with ~~said~~the conditioner comprising an abrasive material including silicon dioxide.

22. (Currently amended) The method of claim 21, wherein ~~said~~ abrading comprises abrading at least ~~said~~the portion of ~~said~~the polishing surface with ~~said~~the abrasive material being in the form of at least one of a particle and a structure protruding from a conditioning surface of ~~said~~the conditioner.

23. (Currently amended) The method of claim 21, wherein ~~said~~ exposing comprises exposing at least ~~said~~the portion of ~~said~~the polishing surface to at least one chemical comprising at least one of hydrofluoric acid, sodium hydroxide, and potassium hydroxide.

24. (Currently amended) The method of claim 20, wherein ~~said~~ abrading comprises abrading at least ~~said~~the portion of ~~said~~the polishing surface with ~~said~~the conditioner comprising an abrasive material including at least one of iron, an iron alloy, copper, nickel, and tungsten.

25. (Currently amended) The method of claim 24, wherein ~~said~~ abrading comprises abrading at least ~~said~~the portion of ~~said~~the polishing surface with ~~said~~the abrasive material being

in the form of at least one of a filament, a particle, and a structure protruding from a conditioning surface of ~~said~~the conditioner.

26. (Currently amended) The method of claim 24, wherein ~~said~~ exposing comprises exposing at least ~~said~~the portion of ~~said~~the polishing surface to at least one chemical comprising hydrochloric acid.

27. (Currently amended) The method of claim 20, further comprising wearing away a conditioning surface of ~~said~~the conditioner to expose abrasive material.

28. (Currently amended) The method of claim 27, wherein ~~said~~ wearing away is effected by contact of abrasive material that is released from ~~said~~the conditioner.

29. (Currently amended) The method of claim 20, wherein ~~said~~ abrading is effected separate from polishing equipment.

30. (Currently amended) The method of claim 20, further comprising sonicating at least ~~said~~the at least one chemical as ~~said~~the polishing pad is exposed to ~~said~~the at least one chemical.

31. (Currently amended) A system for conditioning a polishing pad, comprising:
a polishing pad support;
a conditioner including:
a supporting substrate including a conditioning surface; and
a plurality of abrasive elements adjacent ~~said~~the conditioning surface, ~~said~~the plurality of
abrasive elements comprising a material that is degradable or dissolvable by at
least one chemical that does not substantially degrade or dissolve a material of a
polishing pad to be conditioned with ~~said~~the plurality of abrasive elements,
~~said~~the conditioner being positionable over ~~said~~the polishing pad support so as to place
~~said~~the conditioning surface in contact with a polishing pad disposed on ~~said~~the
polishing pad support; and
at least one movement component configured to move at least one of ~~said~~the polishing pad
support and ~~said~~the conditioner laterally relative to the other of ~~said~~the polishing pad
support and ~~said~~the conditioner.
32. (Currently amended) The system of claim 31, wherein ~~said~~the at least one
movement component is configured to rotate one of ~~said~~the polishing pad support and ~~said~~the
conditioner.
33. (Currently amended) The system of claim 31, wherein ~~said~~the at least one
movement component is configured to laterally vibrate one of ~~said~~the polishing pad support and
~~said~~the conditioner.
34. (Currently amended) The system of claim 31, wherein ~~said~~the at least one movement
component is configured to move one of ~~said~~the polishing pad support and ~~said~~the conditioner
substantially linearly relative to the other of ~~said~~the polishing pad support and ~~said~~the
conditioner.

35. (Currently amended) The system of claim 31, wherein ~~said~~the plurality of abrasive elements of ~~said~~the conditioner have a dimension of from about 25 μm to about 500 μm .

36. (Currently amended) The system of claim 31, wherein ~~said~~the plurality of abrasive elements of ~~said~~the conditioner are secured to ~~said~~the conditioning surface thereof.

37. (Currently amended) The system of claim 31, wherein ~~said~~the plurality of abrasive elements of ~~said~~the conditioner comprise abrasive particles at least partially embedded within ~~said~~the supporting substrate of ~~said~~the conditioner.

38. (Currently amended) The system of claim 37, wherein ~~said~~the abrasive particles are at least partially embedded in ~~said~~the conditioning surface.

39. (Currently amended) The system of claim 38, further including abrasive particles that are completely embedded within ~~said~~the supporting substrate.

40. (Currently amended) The system of claim 37, wherein ~~said~~the supporting substrate of ~~said~~the conditioner comprises at least one of a polymer, a metal, a ceramic, paper, a paper-like compound, and a fabric.

41. (Currently amended) The system of claim 31, wherein ~~said~~the plurality of abrasive elements of ~~said~~the conditioner are located beneath ~~said~~the conditioning surface thereof.

42. (Currently amended) The system of claim 31, wherein ~~said~~the supporting substrate of ~~said~~the conditioner is substantially rigid.

43. (Currently amended) The system of claim 42, wherein ~~said~~the supporting substrate of ~~said~~the conditioner comprises at least one of a polymer, a metal, and a ceramic.

44. (Currently amended) The system of claim 31, wherein ~~said~~the supporting substrate of ~~said~~the conditioner is pliable.

45. (Currently amended) The system of claim 44, wherein ~~said~~the supporting substrate comprises at least one of paper, a paper-like compound, and fabric.

46. (Currently amended) The system of claim 31, wherein ~~said~~the plurality of abrasive elements of ~~said~~the conditioner comprise filaments.

47. (Currently amended) The system of claim 31, wherein ~~said~~the plurality of abrasive elements of ~~said~~the conditioner protrude from and are continuous with ~~said~~the conditioning surface thereof.

48. (Currently amended) The system of claim 31, wherein ~~said~~the plurality of abrasive elements and ~~said~~the supporting substrate of ~~said~~the conditioner comprise the same material.

49. (Currently amended) The system of claim 47, wherein ~~said~~the plurality of abrasive elements of ~~said~~the conditioner and at least ~~said~~the conditioning surface of ~~said~~the supporting substrate of ~~said~~the conditioner comprise ~~said~~the material that is degradable or dissolvable by at least one chemical that does not substantially degrade or dissolve a material of a polishing pad to be conditioned with ~~said~~the apparatus.

50. (Currently amended) The apparatus of claim 49, wherein ~~said~~the material that is degradable or dissolvable by at least one chemical that does not substantially degrade or dissolve a material of a polishing pad to be conditioned comprises at least one of silicon dioxide, iron, an iron alloy, copper, nickel, and tungsten.

51. (Currently amended) The apparatus of claim 31, wherein ~~said~~the at least one chemical comprises at least one of hydrofluoric acid, sodium hydroxide, potassium hydroxide, and hydrochloric acid.

52-65 (Canceled)